

## **Summary Statements from Science Panel Meeting**

### **Selenium**

In the shallow water habitats, birds would be exposed to selenium through the food web, and selenium would also be mixed into the water column by winds. The longer the system (SHC) operates, the greater the potential for build up of selenium, causing increased concern for selenium. Habitat cells may need periodic cleaning.

Selenium has an adverse effect on some breeding birds at the Salton Sea (which is not all birds); selenium is rapidly depleted in birds once they are removed from a selenium source (as would occur with transitory bird species). The effect from selenium at the Salton Sea is some level of decreased hatchability of eggs; the effects are limited and could be mitigated.

Selenium concentration in sediments should be considered in the design of alternatives – in certain areas, sediment concentrations are high.

### **Hydrogen sulfide**

Hydrogen sulfide is a manageable, short-term issue. The current alternative sea configurations would continue and may increase the duration of stratification and episodic releases of hydrogen sulfide and ammonia; shallower sea configurations (10 to 12 meters deep) would decrease the duration of stratification and lead to more frequent mixing, which would limit the development of hydrogen sulfide and ammonia.

Hydrogen sulfide levels can also be controlled to some degree with nutrient reduction; if phosphorus inputs are reduced, there will also be a reduction in formation of hydrogen sulfide. However, there is disagreement about the amount of phosphorus reduction needed – may need up to 90% reduction.

### **Temperature**

Low water temperature poses a risk to tilapia in shallow water habitats; lakes would stay warm enough in winter to support tilapia. If fish kill happens when birds are present that depend on fish (i.e., pelicans in winter), becomes an important issue.

### **Dissolved Oxygen**

Issues for dissolved oxygen include both diurnal fluctuations in shallow water habitats and seasonal levels due to stratification in deep water habitats; however, dissolved oxygen is not a high priority.